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## **TECH CENTER 1600/2900**

## IN THE CLAIMS

Please amend claims 31-33, 35, 37, 39 and 45 as follows:

- 31. (Currently amended) A synthetic peptide comprising a regulatory virus protein R (Vpr) of the human immunodeficiency virus type 1(HIV-1) (SEQ ID NO: 1), or a fragment or variant thereof, wherein the fragment or variant thereof consists of a peptide selected from the group consisting of:
- (a) a 20 amino acid Vpr protein (sVpr<sup>1-20</sup> or sVpr<sup>21-40</sup>; SEQ ID NO: 8 and 9, respectively);
  - (b) a 47 amino acid N-terminal peptide (sVpr<sup>1-47</sup>);
  - (c) a 49 amino acid long C-terminal peptide (sVpr<sup>48-96</sup>); or
  - (d) a fragment of at least 15 amino acids of any one of (a)-(c).
- 32. (Currently amended) A fragment of the The synthetic peptide of claim 31, consisting of 

  <u>New Prince (SEQ ID NO: 1)</u> a peptide selected from the group consisting of:
- (a) a 20 amino acid Vpr protein (sVpr<sup>1-20</sup> or sVpr<sup>21-40</sup>; SEQ ID NO: 8 and 9, respectively);
  - (d) a 47 amino acid N-terminal peptide (sVpr<sup>1-47</sup>);
  - (e) a 49 amino acid long C-terminal peptide (sVpr 48-96); or
  - (f) a fragment of at least 15 amino acids of any one of (a)-(c).
- 33. (Currently amended) The synthetic peptide fragment of claim 32 31, wherein the fragment consists of:

- (a) sVpr<sup>11-25</sup> (SEQ ID NO: 4);
- (b) sVpr<sup>41-55</sup> (SEQ ID NO: 5);
- (c) sVpr46-60 (SEQ ID NO: 6); or
- (d) sVpr<sup>56-70</sup> (SEQ ID NO: 7).
- 34. (Previously added) The synthetic peptide of claim 31 bound to a second molecule, wherein the second molecule comprises a DNA or protein molecule.
- 35. (Currently amended) The synthetic peptide fragment of claim 32 bound to a second molecule, wherein the second molecule comprises a DNA or protein molecule.
- 36. (Previously added) A pharmaceutical composition comprising the synthetic peptide of claim 31 and a pharmaceutically acceptable carrier.
- 37. (Currently amended) A pharmaceutical composition comprising the synthetic peptide fragment of claim 32 and a pharmaceutically acceptable carrier.
- 38. (Previously added) A pharmaceutical composition comprising the synthetic peptide of claim 34 and a pharmaceutically acceptable carrier.
- 39. (Currently amended) A pharmaceutical composition comprising the synthetic peptide fragment of claim 35 and a pharmaceutically acceptable carrier.
- 40. (Previously added) A method of producing synthetic peptides derived from the regulatory virus protein R (Vpr) of HIV-1, the method comprising:
  - (a) synthesizing C-terminal Vpr peptides on a serine resin; and
  - (b) synthesizing N-terminal Vpr peptides on a polystyrene polyoxyethylene resin;

wherein chain elongation of the peptides is performed using fluoromethyloxycarbonyl (FMOC) protection.

- 41. (Previously added) The method of claim 40, further comprising:
- (c) cleaving protection groups using a cleavage mixture comprising 95% trifluoracetic acid (TFA), 3% triisopropylsilane and 2-5% ethyandithiol.
- 42. (Previously added) The method of claim 40, further comprising purifying the peptides by HPLC on a column of silica gel using a linear gradient of TFA and water in acetonitrile.
  - 43. (Previously added) A synthetic Vpr peptide produced by the method of claim 40.
- 44. (Previously added) A biological assay system comprising a synthetic peptide of claim 31 immobilized on a substrate.
- 45. (Currently amended) A biological assay system comprising a peptide fragment of claim 32 immobilized on a substrate.
- 2 46. (Previously added) The biological assay system of claim 44, which comprises an ELISA.
  - 47. (Previously added) The biological assay system of claim 45, which comprises an

ELISA.